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ABSTRACT

This booklet is intended to stimulate sharing of ideas and successful kindergarten programs among Individually Guided Education (IGE) schools. Four selected schools which have integrated kindergarten into a nongraded approach to education are described in terms of organization, the different curricula followed, the kinds of assessment used, and the different ways of using auxiliary personnel. In addition to these case studies, the booklet includes a section which contains many of the ideas used in schools which were not individually examined. A final section suggests further possibilities for using Individually Guided Education. (CS)

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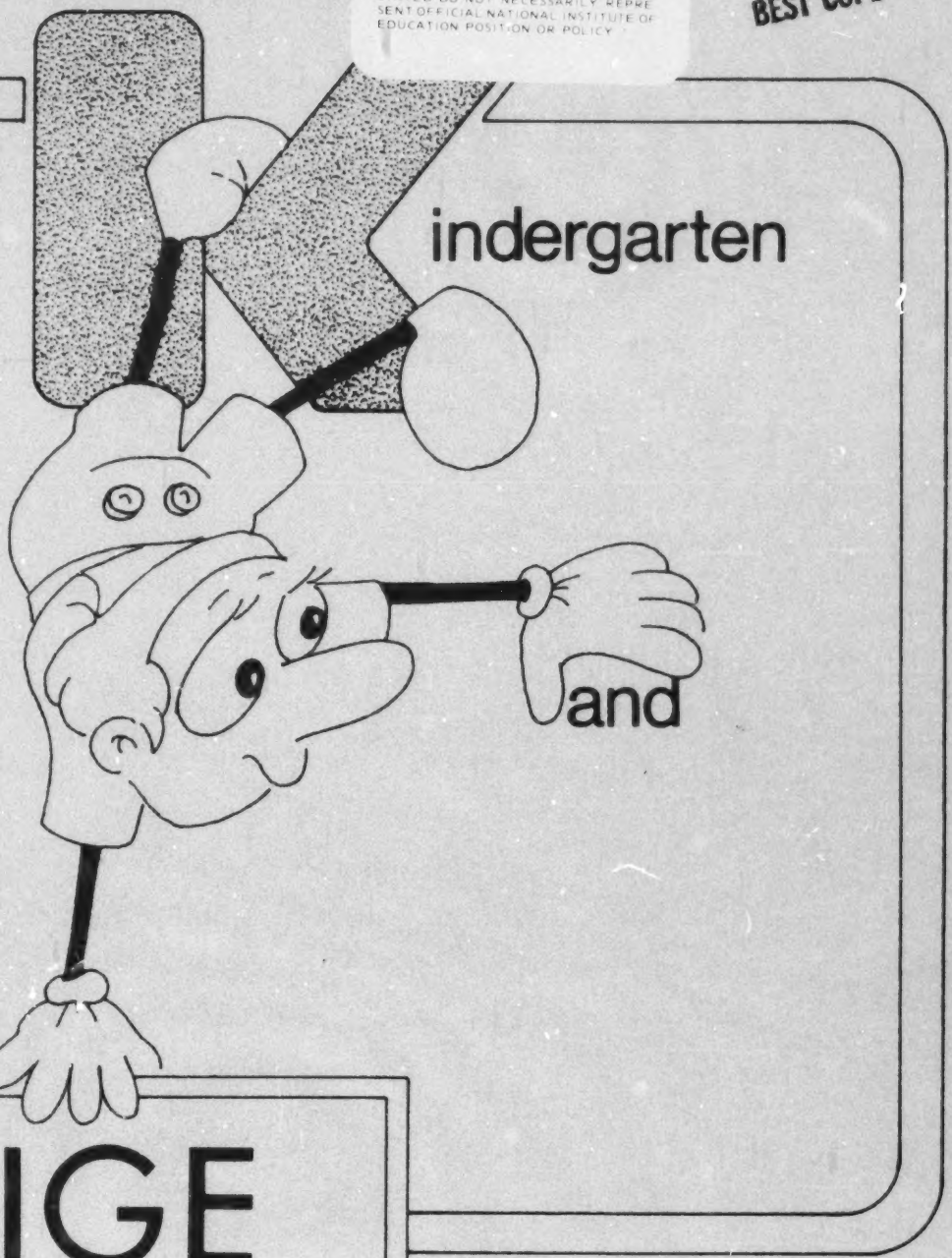

IGE

Individually Guided Education

4 Case Studies

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KINDERGARTEN AND IGE

by

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PS 007829

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INTRODUCTION

A recurring question faced by schools new to Individually Guided Education is what to do with kindergarten. Often the kindergarten room has been an isolated part of the school and there seemed no obvious way to integrate it into an individualized, non-graded approach to education.

The Wisconsin Research and Development Center for Cognitive Learning surveyed a number of IGE schools to see how they approached this question. In the spring of 1972, fourteen IGE state coordinators were asked to nominate schools which they thought were doing an exemplary job of implementing IGE in kindergarten. Teachers and principals at nineteen schools were then interviewed by phone. Subsequently, kindergarten programs at four schools were selected to be described as "case studies" because they are representative of the good ideas that school personnel have developed in their effort to individualize. Each school chosen reflects a different type of kindergarten organization--that is, a morning and afternoon kindergarten unit; a morning and afternoon kindergarten included in a primary unit; an all-day kindergarten unit; and an all-day kindergarten included in a primary unit.

In order to share as much of the information gathered as possible, this booklet first describes each of the four selected schools in terms of their organization, curriculum, grouping practices, use of assessment, and "extra" ideas. Following these case studies is a section called "nuggets" which contains many of the ideas given us by schools who were not chosen to be case studies. The last section describes the wide range of possibilities for using IGE. The schools surveyed had many alternative ways of handling their organization, curriculum, use of assessment, and use of aides or other auxiliary personnel. From this wide range of choices, it is hoped that schools new to IGE will select the ones that best suit their individual needs, or better still, be encouraged to devise a new approach.

Since the time of the phone survey these schools and many others have continued to discover new ways to improve their IGE implementation. This booklet is intended to stimulate sharing of ideas and successful programs among IGE schools; it is not intended as a complete description of how to use IGE in kindergarten. The staff of the R & D Center is interested in your ideas about kindergarten IGE programs. If you care

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to react to the ideas in this booklet and/or to provide information about your concerns and successes, please write to:

Ms. Mary Horn
Wisconsin Research and Development
Center for Cognitive Learning
1025 West Johnson Street
Madison, Wisconsin 53706

It is also hoped that this booklet will stimulate discussions and sharing of ideas through network and league meetings. Perhaps there is a successful program nearby that can help to get a new school on its way.

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1 Martin Luther King, Jr. Elementary School

Morning and Afternoon

K unit

The Martin Luther King, Jr. School, in Oakland, California, has answered the question of how to organize their kindergarten children into their new IGE program while still accommodating the standard kindergarten time schedule of either morning or afternoon sessions. They have done this by forming a kindergarten unit which does not extend into the primary levels. This unit makes up one "pod" of their five-pod building. Within this pod are four classrooms circling a resource center.

The 130 children who attend this kindergarten unit are taught by a total of six teachers. Four teachers have only morning classes, one teacher has only an afternoon class, and a unit leader assists all the teachers. In addition, there are five aides in the unit, three of whom work full-time. One of the special jobs of the unit leader is to recruit additional help from college students and Neighborhood Youth Corps workers (usually of high school age). With the addition of these "student teachers" (the college students) and the high school students, each teacher can count on having three or four adults in the room with her 25 children--herself, an aide, a student teacher, and/or a high school student.

Two of the four classrooms are a part of the federally-funded "Follow-Through Program," which provides additional money for materials, food, health check-ups, and the three full-time aides. The children in the follow-through classrooms have a slightly longer school day (8:40 a.m. to 1:00 p.m.) than those in the other classrooms who attend from 8:40 a.m. to 11:45 a.m. or from 12:05 p.m. to 3:05 p.m.

The kindergarten curriculum in this unit includes a blend of social and content-oriented activities. Although the children work toward locally developed behavioral objectives in math, language development, reading, and social behavior, emphasis is placed on free choice of activities, even when working on a particular skill. These unit teachers have taken the many readiness skills outlined in their school board's curriculum guide and simplified them into a "profile" of eight concepts they think a child should master during the year. (See profile on p. 5). The profile of skills, including such things as identification of colors, shapes, and numerals, is the basis of the curriculum for the first half of the child's school day.

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This period of slightly over an hour is used for semi-formal or academic instruction, which begins at the start of the school year. A child will use this hour to work on the readiness concepts until he has mastered them. He will then start the reading and limited math instruction contained in the Southwest Regional Lab Beginning Reading Program (SWRL). By spring of the year, some of the children have progressed beyond the math taught in the kindergarten curriculum. They then go to one of the two pods which house the primary 1-3 children to receive math instruction.

During the first hour each adult supervises two groups of four to five children as they work on the concepts they need. In order to maintain the emphasis on the child's freedom of choice, the teacher may place on a table a variety of games, toys, and other activities related to a particular skill, and let each child choose what he would like to do. As the children use their selected materials, the adult may work directly with one or more children while overseeing the activities of the others and making mental note of their progress. On a particular day some children may not be interested in working in a formal group. In this case, they have the freedom to go to the resource center to watch *Sesame Street*, to visit the Media Center, or to play on their own with games in the room. With this format, the teachers are in close touch with each child's academic and social development, while giving him maximum independence and freedom of choice.

In order to teach the variety of concepts needed during this first period, the two "follow-through" classrooms work together, and the other two morning classrooms work together. Within these rooms the teachers, aides, and student teachers exchange children freely so that each child is working on the concept he needs at that time. In this way the children also become familiar with working with a variety of adults.

During the remainder of the child's day, he may choose any activity from either of the two rooms in which he works or the resource center. He is not encouraged to work on any specific task during this period except that once a week all the children participate in music and physical education at this time. On other days the teachers may include some singing activities for those children who want to take part.

In order to carry out this flexible arrangement the children and adults spend much time at the beginning of the year establishing guidelines on how many people can work well in a certain area. The children are quickly aware of when an area's "too crowded" so it's easy for them to understand that if four children are already in the "doll corner" they should choose something else for the time being. Discussion of these guidelines continues so that, by October or November, the children are quite self-directed, freeing the adults to work with individuals or groups. Even though no urgency is placed on learning specific concepts during this time period, the teachers are aware of each child's needs and interact with and teach different children as the opportunity arises. This is especially true of the children working in the reading program who often choose to use this time to do more work on their skills.

With the first portion of their day devoted to semi-formal skill instruction and the second portion wide open for the children to choose activities, the teachers feel that it is very important for them to know where each child is in his academic and social development. A variety of assessment measures are used to initially identify a child's level. The first assessment is made through teacher judgment. This informal assessment of performance may be all that is necessary for placing some of the children in a particular group or assigning individual work to them. With other children, more information will be obtained by administering one or more tests. A locally-developed Santa Clara county test is used to measure a child's visual, auditory, and motor skills, as well as indicating the extent of his background experiences. Other children may be tested on the standardized readiness Test of Basic Experiences. The McHugh-McParland Reading Readiness Test is used to gain further insight into some children. In addition, the SWRL Reading Program has a series of tests used throughout instruction which indicate the level at which each child should be working. The teachers combine the information from these instruments and from their day-to-day observations to know when a child has mastered a concept and is ready to be assigned, either independently or as a member of a group, to other work.

To keep track of each child's progress his "profile" sheet is kept up-to-date. Once a month the information from these sheets is transferred to a large chart, kept in the resource center, which includes the name of every child in the unit and a color key to indicate which concepts he has mastered. When a child has finished learning the readiness concepts, his progress in the SWRL reading program is noted on another unit-wide chart.

Some additional features of this kindergarten unit include their media center program, their use of parent volunteers, and the amount of staff time spent in planning together and working with specialists.

At different times during the day, four to five kindergarten children choose to go to the media center which is housed in another "pod" in the school. Once there, they have a free choice of all the books and other media materials. A group of older primary children who have finished what they had contracted to do in their units, or who need practice in reading, are on hand to read to the kindergarten children, to tell stories, or to share in their use of the film loops, tape recorders, phonograph records, or filmstrips. To help organize all these diverse activities the teachers have developed "media contracts." A copy of this contract is shown on page 5.

One teacher describes the use of contracts in this way: "The children who go to the media center make their own selection. But, because they come from all the rooms, it would be pretty difficult to remember just what each child is doing and where his needs are. So the contract is kept up with by the children and they are marked by the teacher and the media specialist in the center. When the child returns to his room, he and his teacher can look at the contract and find out what [materials] he's using." After spaces have been checked by the adults in the media center, the child may color them in to indicate that he has fulfilled what he "contracted" to do. His teacher

and the media center specialist then gather new materials according to the skills they know the child needs and mix them in with the materials the child is already enjoying.

When he decides to go to the media center, each child is responsible for getting his contract out of an open-box file cabinet, which sits on a table in each room. He chooses his activity, gets his contract checked as he leaves the media center, and returns it to the file. The teachers feel that the child's sense of self-direction and independence is enhanced when he takes responsibility for his own contract. By October, when the program is in full swing, some children are choosing to go to the media center every day; others are choosing to go only once every two or three weeks.

Parent volunteers are an additional resource available to the children in the "follow-through" classrooms. Although teachers do not count on having parents every day, they do plan ahead for activities that a parent can do with particular children. For example, they may set aside some alphabet letters to be worked on with "Bill." When a parent comes, he or she quickly becomes involved in this activity. On the average four or five parents will spend from thirty minutes to an hour each in this unit every week.

Approximately six hours a week are formally set aside for unit planning. Once a week everyone in the kindergarten unit (the teachers, aides, student teachers) meet from 2:00 p.m. to 4:00 p.m. to plan activities for the entire unit. The afternoon kindergarten teacher joins them at 3:00 p.m. These meetings may include demonstrating methods for teaching the SWRL program, sharing games or activities teachers have found or made, or spreading the information and ideas discussed at the IIC meetings. Four days a week for an hour each day (usually in the afternoon after the morning and "follow-through" sessions are over) the two teachers, aides, and the student teachers who work together as a team meet to plan the specific activities for their rooms. In addition, the unit leader joins the other two unit leaders, the two reading and the two math specialists, and the principal for Instructional Improvement Committee (IIC) meetings each week for two or more hours.

The unit leader describes this as a gradually emerging kindergarten program. An early problem for them was finding a way of knowing where the children were and where they should go next. Once the school board's lists of priorities had been simplified into the "profile" of concepts in eight categories, teachers found it easy to keep up with the children and they were on their way. The unit leader's advice to other schools is, "Keep your purpose in mind and find an easy way to know where your children are."

ACTIVITY Concepts

Children's Names	Colors	Shapes	Numerals 0-5	Numerals 6-10	ers 0-5	Sets 6-10	Upper Alphabets	Lower Alphabets		

2 McKinley Elementary School

Morning and Afternoon

K-2 unit

McKinley Elementary School in Appleton, Wisconsin, has added a new dimension to the popular morning or afternoon kindergarten organization by integrating the kindergarten with the six- and seven-year olds. In this K-2 unit the four teachers each have separate homerooms. One teacher has K-2 children in her homeroom; another has a morning group and an afternoon group of kindergarten children; and the other two have both primary "ones" and "twos." The children move to various rooms, or teaching stations, throughout the day. The teachers have arranged the schedule so they all teach some of their 90 kindergarten children at some point during the day. Sometimes one of the primary teachers will take a group of all-K students for math or reading readiness activities; at other times the teachers have multi-aged groups where the kindergarten children are mixed in with the older primary children.

Developing a well-rounded child is the aim of this school which puts equal emphasis on content areas and social activity. The students work towards behavioral objectives in the Prereading Skills Program and study communication arts, math readiness, social studies, science, music and dramatics.

The day is divided into twenty-minute time blocks for all areas of teaching. During one block each day all the morning and afternoon kindergarten children are integrated with the other age levels. The morning kindergarten children work with the older children in the language arts block and the afternoon kindergarten children work with the older children during the social studies and science time block. A similar kind of activity is planned for both the morning and afternoon time blocks to ensure that all children have the opportunity to work and socialize in large and small groups with children of other ages.

In the K-2 homeroom, children of different ages have additional opportunities to do activities together. Some of the "communication arts" time is spent in conversation, where the children are encouraged to talk to each other to build their vocabulary. The older children also read to younger ones and assist them with some of their prereading activities. The kindergarten children often work with the primary children on art projects or story-writing. This interaction benefits both groups by offering them many chances to learn from each other.

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The unit leader feels that this is especially helpful to the older children because "they have a meaningful way to practice their skills."

During the morning session some children from the three age levels work together in reading skill groups. Sometimes an older child will join a kindergarten group for remedial work. In other cases, kindergarten children who are reading at the same level as the primary youngsters will join their groups.

In the afternoon sessions, a social studies or science concept is introduced to multiage groups. The group then splits up to work on an activity. Depending on the activity, the children will form groups of all kindergarten children, all older children, or mixed ages.

The grouping of children for skill instruction begins in October and is based upon both formal and informal assessment. The Metropolitan Readiness Test is given to some children in the fall. The Prereading Skills Test, given four or five times throughout the year, provides additional information to aid in forming groups. Groups are formed both within the kindergarten part of the unit and across the three age levels. In spring, the Level A tests for the Word Attack area of the Wisconsin Design for Reading Skill Development are given.

Much emphasis is also given to informal assessment, particularly teacher observation. Teacher-made assessments--worksheets, charts, follow-through exercises, etc.--are used to check each child's progress toward specific objectives (e.g., following directions) and as a basis for written evaluations done twice a year.

Important to the success of this unit are two full-time teacher aides. These aides are highly qualified people who do not only clerical tasks but also instructional activities, such as carrying out teachers' plans with groups, observations, lesson reinforcement, and individual testing.

The four teachers and two aides in this unit have found that the kindergarten children adjust very quickly to working with different adults. The children "think it's really great" to have a variety of teachers and it prepares them for future years when they will work with many adults.

The success of this IGE program is evident through the enthusiasm of the teachers and the children. One teacher noted that "the kindergartners really enjoy having the primaries work with them, because they would much prefer having an older child read a story to them than they would have an adult do it." The older children get a boost to their self-image and reinforcement of their skills as they work with the younger ones. In this way, each child has his social and academic needs met.

3 Linkhorne Elementary School

All day K unit

An alternate form of kindergarten organization is the all-day kindergarten unit, which does not extend into the primary levels. One school that uses this approach is the Linkhorne Elementary School in Lynchburg, Virginia. Their 61 kindergarten children and three teachers form a unit which meets from 8:50 a.m. to 3:15 p.m., five days a week. This unit, located in a wing separate from the rest of the building, has one large room with sliding dividing walls. Using this space flexibly, the teachers feel they can meet the individual needs of all 61 children, even though the achievement and ability levels of the students vary greatly. Since the teachers have had experience teaching primary levels as well as kindergarten, they are able to accommodate a wide range of student needs. Although there are no aides assigned to the unit, parents from the community provide a great deal of assistance to their IGE program.

The curriculum includes a mixture of cognitive, psychomotor and social skills. As one teacher puts it, "We strive to develop the whole child. We like to develop his social behavior and to introduce a lot of content areas and other readiness activities." Two of the content areas, the Word Attack area of the Wisconsin Design for Reading Skill Development and the Individualized Math Systems program, are structured in terms of specific behavioral objectives. Social studies and science are also taught. In addition, much emphasis is placed on the development of psychomotor skills through movement education. This approach increases the child's awareness of his body and points out the various ways he can use it.

In order to meet their objectives of social, psychomotor, and cognitive development and to accommodate the different backgrounds of the children, some pupils spend more time in social activities than others. In addition, during the first semester the curriculum places more emphasis on social activities; as the year goes on more content-oriented activities are introduced.

The time spent in social activities is not necessarily "free play"; projects where children learn to work together are included. A "transportation unit" provides one example of how the teachers have integrated social and content-related activities. As they prepared this unit of study, the teachers thought about what social skills

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could be developed in addition to teaching about transportation itself. In conjunction with their discussions of different forms of transportation, the children took a field trip involving four forms of transportation. They went to the airport, rode on a train, came back by car, and took a bus ride. Back in their classrooms, the children worked in groups to make their own vehicles out of packing boxes. In addition, each child made his own bus driver's, pilot's, and trainman's cap.

The children's academic work was also centered around this topic. Experience stories, social studies and science lessons, and reading and math skills were all geared to the particular transportation media being emphasized at that time. In this way, the children learned not only the function of transportation, but also such things as which form is the fastest, the most economical, and the most fun to ride. More importantly in the teacher's view, however, they learned what attitudes and ways of acting are needed to be a good passenger, a bus driver, a pilot, etc. As they made their vehicles they also learned ways of working together and the importance of each person doing his part.

The integration of these social, academic, and manual skills into this unit of study resulted in a profitable and most enjoyable experience for the children, teachers, and parents involved.

To accommodate the varying abilities in the academic skills, the teachers in this unit divide their children into small groups for differentiated instruction in reading and math. Beginning around October, four Wisconsin Design groups and three math groups are formed. Every two to three weeks, these groups change in membership based upon mastery of the skill at hand.

Because their children attend for a full day, the teachers have time each day to teach the reading, math, science, and social studies content areas in conjunction with the social, art, music, and physical-education activities that round out their curriculum. For the first half hour each morning, the children are alphabetically assigned to "home base" groups for attendance and opening exercise. After that, they are interchanged continuously among the three teachers. In addition to having different children in their reading and math groups, the teachers take turns planning and teaching "units of study," such as the transportation unit. Within these units, their social studies and science concepts are taught. While the teacher who has planned the unit of study teaches it, the other two teachers teach the Wisconsin Design skill groups. After free play, lunch, and story time, the children are grouped again for math instruction. Approximately half of the children are involved in the Individualized Math Systems (IMS) program while the others are engaged in various levels of math readiness activities. The math instruction is followed by physical education and then the art, music, and social activities related to the unit being studied. It was during this time that the children made their vehicles for the unit on transportation. The children then rest for a one-hour nap time, have a snack in the school's cafeteria, and wrap up the day with an oral review of the day's activities. The schedule for a typical day is:

8:00-8:50	Teacher planning time
8:50-9:30	"Home-base" activities. Attendance, opening exercise, singing, poetry, etc.
9:30-10:00	Wisconsin Design skill groups (2 teachers), "Unit activities" (1 teacher); science and social studies concepts included here
10:00-10:30	Same as above, with groups rotating
10:30-11:00	Free play
11:00-11:45	Clean-up and lunch
11:45-12:00	"Story time" (books, films, or filmstrips)
12:00-12:30	Math groups (children divided into 3 groups)
12:30-1:00	Movement education (usually outdoors)
1:00-1:30	Art and music activities related to unit being taught (Holiday activities also included here)
1:30-2:30	Naps
2:30-3:15	Snack, clean-up, review of that day's activities

In order to determine how instruction can be tailored for each child within this schedule, the teachers use both formal and informal assessment tools. At the beginning of the year, teacher observation plays a major role in determining when a child is ready to be tested and when he will start small group instruction. As one teacher explains: "We usually go by their performance within the classroom, their social development, ability to follow directions, self-reliance. When we start our testing program, those who are ready and can be tested easily and do score very high can start [small group instruction] right away. We don't test them until we are sure they are ready."

Once a child is ready to be tested, he takes the Scammon Attitude Test which measures how he feels about himself and what motivates him. In addition, the teachers use the criterion-referenced tests for the Word Attack area of the Wisconsin Design for Reading Skill Development to see which word attack skills he needs to work on. As the reading and math groups get underway, the teachers use both criterion-referenced tests and their own performance tests and observations to decide when a child has mastered a skill and is ready to move on to the next one. This teacher evaluation goes on continually and the teachers communicate with each other about the students during their planning time from 8:00 a.m. to 8:50 a.m. each day. Since the teachers are also continually together in their open area during the day, they have many opportunities to discuss each child's progress and to decide when he should change groups.

Formal assessment takes place again in the spring when the Metropolitan Readiness Test and the Lorge-Thorndike IQ test are administered. The Scammon Attitude Test is also given again.

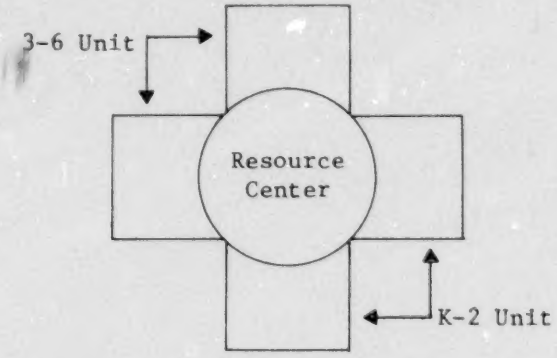
An additional feature in this school is the amount of help the teachers receive from parents. As the principal explains it, when they first opened as an IGE school, they had "wall to wall" parents coming to observe "out of curiosity and apprehension." The parents liked what they saw and have returned to help as much as they can. As a result, the kindergarten unit has three parents who come specifically to help with the IMS program; others who come one day a week to prepare the afternoon snack and help get the children ready to go home; another who comes to type two hours a week; and others who help out with painting, collecting money, etc. Other parents come along on field trips and have clearly stated, "if you need me, please call."

The teachers' enthusiasm over their program matches that of the parents. One teacher explained: "We've been very pleased with IGE. We like the concept of IGE and the freedom it allows the teachers, the idea of working together and getting the kids going at their own rate." Because the parents, teachers, and children are happy over the success of IGE, visitors are often encouraged to try out some of the ideas found at Linkhorne. Comments such as "I can't get over the relaxation of the parents, the happiness among the teachers" . . . "the teachers are happy, the children are happy and unhurried" and "it's a really good feeling," give impetus to the program's continuation. The principal also reports that "since the parents have become so happy because their children are, the word is spreading throughout our city and other schools are getting into IGE."

4 Garfield Elementary School

All day K-2 unit

An IGE school in Garfield, Minnesota, has a relatively new approach to kindergarten organization--the kindergarten children in this K-2 unit attend school all day, three days a week. Including the kindergarten children in the all-day approach is a result of the cost of busing children to this new open area school. The unit has a total enrollment of 105 children, with three teachers and four aides. After the first few weeks, no one teacher is specifically assigned to the 35 kindergarten children--all three share the responsibility. The unit uses two of the four pods which form a "cross" around a sunken resource center. (See diagram.) A 3 to 6 unit is housed in the other two pods.



One part of the kindergarten philosophy at Garfield is "to prepare each child for school and the years to come, and to help him to interact with other children." The emphasis on interaction is evident in the way the kindergarten children spend their three school days each week. The staff is attempting to eliminate the title of "kindergartners" and refers to the children as "our five-year olds." After an initial 4-6 weeks spent with one teacher to get used to the routine of school and the 8:15 a.m. to 2:15 p.m. day, the five-year olds start to mix with the six- and seven-year olds in "interest area" activities for about an hour a day. During this time, social studies and science concepts are taught to seven multi-aged groups. A variety of approaches and materials is used here, including interest centers. Depending on the activity that day, the children may choose from all the materials at an interest center or be assigned a particular task. Mixing the older

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and younger children provides an opportunity for peer teaching. Often an older child will be assigned to help a particular younger one; at other times the children group themselves, which results in some informal tutoring. Each social studies or science concept taught usually takes from one to two weeks. The children are then regrouped so that the make-up of each group changes frequently.

In addition to the social studies and science concepts, the curriculum includes language arts and math for which behavioral objectives have been set. Once a five-year old masters the reading readiness portion of the language arts program, he begins individualized instruction in reading. In this way, different five-year olds are starting the reading program throughout the year. All the K-2 children at Garfield use the individually-paced Webster & McGraw Hill Programmed Reading, Books 1-14, followed by the 1972 Houghton-Mifflin Reading Series, which has been individualized by the staff. The child's maturity and his progress are used as guidelines for determining when a five-year old is ready to be grouped with older children. The children adjust easily to this interaction and enjoy it very much.

On the two days when the five-year olds are not attending school, the six- and seven-year olds have either current events reading with Scholastic or Weekly Readers, or art and physical education instruction with the special area teachers.

To help form their reading and math groups, the teachers use the ABC Inventory to Determine Kindergarten and School Readiness at the beginning of the year. This test also helps them to diagnose some children's need for individual help. As the year goes on, they use the tests which are a part of their reading and math programs in addition to teacher-made assessments to ascertain if a child has mastered a skill. For their social studies and science "interest units," a teacher-made performance test is given at the end of each week or two weeks of study.

For math instruction, the children use the Developing Mathematical Processes program being field tested by the Wisconsin Research and Development Center for Cognitive Learning. Two groups of five-year olds are formed for this part of the curriculum.

The school day also includes a half hour supervised play time for the whole unit, in addition to a 15-minute story and rest time for the five-year olds. The last half hour is spent in "independent activities" where each child may choose activities from any curriculum area. Once again, the younger and older children are mixed together and some tutoring takes place. The children are also free to go into the resource center before, after, and during school hours. The younger children know which filmstrips they can and should use and all the children use this facility frequently.

The teachers in this K-2 unit feel that there are many positive results from integrating the five-year olds with the older primary children. The younger children now do more prereading activities; those who know how to read are better provided for; and they have more small group instruction. In addition, a feeling of self-confidence and independence is evident in the young children as they share activities with the older ones. With this approach the five-year olds have

experience working with different teachers, aides, and tutors throughout the day. According to one teacher, "They love working with more than one adult and adjust to it easily."

To organize their activities, the teachers and aides in this unit spend approximately eight hours a week in planning. They work together 45 minutes each morning before the children arrive, and a half hour on four afternoons after the children have left. In addition, once a week the school meets from 2:30 p.m. to 3:00 p.m. followed by two-hour unit meetings.

The teachers and principal feel that their IGE program has been very successful. The integration of children of different ages has helped them to meet the individual needs of each child, and their creativity in the development of learning centers and interest units has added a great deal to their IGE program.

Nuggets

Good ideas and techniques conceived in implementing a program such as Individually Guided Education ought to be shared. Suggested here are some of those nuggets or ideas presented in interviews about IGE in kindergarten with teachers and principals whose schools were in various stages of implementation. Although each practice was used within the framework of a specific unit organization, many can be modified for use with other organizational patterns. The nuggets are listed under two categories, MIXING AGE GROUPS and INSTRUCTION.

MIXING AGE GROUPS

Outside the school building, children of different ages are constantly interacting or mixing in sibling and peer relationships. How can you introduce a five-year old to school, a totally new environment, and at the same time maintain the exposure to different-aged children that is an integral part of his everyday environment? As one principal said, "I feel that there is a tremendous amount of growth and learning to be gained from being with children of different ages. School is probably the only place in the world that separates kids by age."

☐ Interacting with other children and teachers is initially accomplished at one school by means of "integrated" lunch hours and recess breaks where five- and six-year olds eat and play together. The five-year olds in this K-1 unit attend an all-day school program. Except for the lunch and recess break periods, the kindergartners stay together with one teacher for the first month while they're becoming adjusted to the school building and school routine. After this first month they begin to sign up for various interest centers (wood shop, sewing, reading labs, etc.) located in all the unit's rooms. Each time it is the child's decision as to which center he'll attend. Interest is high since the child does the choosing. Because of their content, the centers are attractive to both the five- and the six-year olds, thereby encouraging mixing and movement to other rooms.

☐ Another school's primary unit, where kindergartners attend school all day, has "home areas," or homerooms, composed of five-, six- and

seven-year olds. These children mix together in a homeroom at the beginning of the morning after which the five-year olds move out to the kindergarten area for the rest of the day. This segregation for instruction occurs at the beginning of the school year when kindergartners are making their initial adjustment to school. After the first month the five- and six-year olds begin mixing for instruction based on common skill needs in readiness and beginning reading activities.

☐ A unit composed of five-, six-, and seven-year olds holds an "activity hour" on Fridays during which time all children intermingle and work together. Although the children select the activities in which they wish to participate, group membership is controlled so that only a certain number of each age are working together at any one time.

☐ Several schools employ the use of peer teaching and are pleased with its many benefits. When reading a story to a small group of kindergartners, the older student not only is providing a pleasurable experience but also is practicing his reading skills. The practice of older students helping around the work benches and play area not only provides for social interaction but also offers the older child a role of responsibility. Utilization of older students as well as parent volunteers and aides allows the teacher more time to work individually with children of any age, either in small group instruction or on a one-to-one basis.

INSTRUCTION

Almost gone is the concept of kindergarten as a place totally devoted to the socialization process. *Sesame Street* and other television programs for preschoolers, and the growth in attendance at nursery schools and day care centers, have helped to create a greater sophistication in five-year olds entering public schools. Consequently, kindergarten curricula are being revised to accommodate this changing educational entry behavior. In kindergarten, learning is organized in specific content areas, and grouping to better provide for individual differences is desirable. Given below is a potpourri of ideas related to the grouping and instructional processes.

☐ Important to IGE is the Instructional Programming Model (IPM) which provides the steps for tailoring children's educational experiences so that individual needs can be met. (See Klausmeier et al., 1971* for a further discussion of the IPM.) The first two steps in the model involve the setting of schoolwide objectives and then estimating a range of objectives that may be met by subgroups. Directly affecting the kindergarten curriculum at one school is this utilization of the IPM. After the school district had established content area objectives to be met in three year segments, the kindergarten teacher identified interim objectives for kindergarten accomplishment. Besides providing a sense of direction, the objectives also furnish a viable framework for specific content area instruction in kindergarten.

☐ Also important to IGE is up-to-date recordkeeping. Several techniques for recording each child's skill development status have been worked out. One kindergarten staff developed 9" by 12" task cards for each child. At the beginning of the year a task card might include the following types of questions so that the child becomes accustomed to learning something over a period of time: Can you tie your shoe? Can you hang up your coat? Do you know your birthday? Do you know your phone number? Each task card is in essence a contract with six or seven concepts based on a content area and stated broadly enough to fit any child. For example, one concept might be "letters." For some children this would mean recognizing letters, while for others it would mean making letters correctly. For each concept there are many activities from which to choose, and during skill time children work from one of their task areas. The teacher sees each child with his task card at least once a day, making note on the back of the card of his progress or where he's having trouble. Individual growth rates are provided for by not imposing a timetable for mastery. When the child thinks he has mastered a concept, he brings his card to a teacher. She assesses him informally and then together they notch open the part for that specific concept to show that he's achieved mastery. When taking his task card home, the child readily shares his success with his parents, and they in turn know what he's been doing. The task card serves both a recordkeeping and publicity function in that it's a working record of information known to the teacher, the child and the parent.

☐ Since skills-oriented instruction, for example reading and math, occurs in the morning in many schools, children in an afternoon kindergarten session normally would not have the opportunity to mix with primary age children for this kind of activity. The situation was circumvented at one school by using assessment results to determine whether a child would attend the morning or the afternoon session beginning with the second school quarter. For the first quarter children attended either the morning or afternoon session according to the school's normal assignment procedure. In September the Stanford Early Achievement Test, whose subscales are The Environment, Mathematics, Letters and Sounds, and Aural Comprehension, was administered to all kindergartners. Those children whose scores fell in the percentile rank of 80 or above were also administered the Level A battery of the Wisconsin Tests of Reading Skill Development, which are criterion-referenced tests. When the second quarter began, children whose test scores along with teacher judgment indicated they were ready to go into a formal reading program--even if it was still at a readiness level--were placed in the morning session. Grouping with six-year olds for reading instruction was then readily accomplished. Attending the afternoon session were children judged less ready for the preceding activities and still needing play and directed motor activities. Reaction to the procedure was positive. The reassignment process was accepted with full cooperation by the parents who had been notified at the beginning of the school year that a change in their children's attendance time might occur.

☐ Moving a child from one group to another, for example, from one reading group to another reading group, has various connotations. It can mean moving "up" or "down," and group designations of "low," "middle," and "high" are quite common. An alternative, but more positive, view of grouping focuses upon the importance of experiencing success--a child is in a certain group only as long as he's successful; as soon as he begins experiencing difficulty, he is switched. At one school instructional groups are small and change quite often depending not only upon how the children are performing but also the content area being taught. A group might be formed on the basis of interest in the content areas, such as science and social studies, where the topic of study focuses the attention of all children on the same subject. For content areas with a fairly established curriculum such as reading and math, a combination of factors determines grouping, but the experience of success is the most important criterion. If a child has been absent from school for a couple of days he may then be at the point of needing to work with a different group. Or if he is beginning to need help and is no longer completely successful, he may join a group that is working on or reinforcing the concept that is causing him trouble. These children are grouped so that they can be successful. The groups change whenever necessary.

☐ Learning to work independently is an integral part of the education process. In developing self-direction the five-year olds in one K-1 unit spend a lot of time at the beginning of the year talking about what goes into making a "good choice." Among other things they discuss choosing and transporting materials, following steps to completing something, and cleaning up. Experiences in making good choices are shared among the group, and children reach the point where they are able to make a choice, follow through, clean up, and make another choice without the help of the teacher. Accepting these responsibilities is basic to participation in the unit's daily non-teacher-directed, "individual decision time" when the five- and six-year olds work together for 1 1/2 hours. Activity centers available during this time include art projects, woodworking, phonics, math, reading, puppetry, writing, and listening. While the number of choices offered is limited in the beginning, that number gradually increases during the year. Ultimately a child would have the choice of 70 to 80 activities in the centers. Because of the number of activities offered and their appeal to all levels, teachers have found that a child does not make the same choice all the time. As one teacher said, "We have really tried to place a strong emphasis on making a good decision, and we have found that children are really very intuitively aware of their needs and the things they are able and not able to do."

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*Klausmeier, H. J., Quilling, M. R., Sorenson, J. S., Way, R. S., & Glasrud, G. R. *Individually Guided Education and the Multiunit Elementary School: Guidelines for Implementation.* Madison: Wisconsin Research and Development Center for Cognitive Learning, 1971.

The Possibilities

Although the four schools described earlier have successful IGE programs, their implementation practices by no means give a complete picture of all possibilities. The survey of the nineteen schools revealed wide variations, each of which seemed to serve its particular building very well. The following description includes some of the various methods of *organizing* the kindergarten children in the school, the different *curricula* followed, the kinds of *assessment* used, and the different ways of using *auxiliary personnel*.

ORGANIZATION

How to organize the kindergarten children for IGE in a multiunit school structure is one of the first questions schools new to IGE often face. The alternatives found included: (1) having a "self-contained" kindergarten room with one teacher; (2) having a "kindergarten unit" with two or more teachers; (3) including the kindergarners in a unit with older children. This third approach had a variety of possibilities within itself: it could be a K-1, K-2, or K-3 unit; the unit size may range from three to six teachers; within the unit only one or all of the teachers may teach the kindergarten children. One factor especially influencing this organizational decision seems to be the physical proximity of the kindergarten room to the primary rooms.

An additional organizational difference among these schools was the amount of time kindergartners spent in school. Many schools used the familiar "morning" and "afternoon" sessions of 2 1/2 to 3 hours each. Other schools had the children come three days a week for six hours each day. A third alternative was to have them attend five full days every two weeks (i.e., three days one week, two days the next, etc.). Another approach is the "all day" (four to six hours) kindergarten meeting five days a week.

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CURRICULUM

With the presence of so many organizational differences, it is reasonable to assume that the curriculum experienced by the kindergarten children in these schools would vary also. Some of the curriculum differences included: (1) the amount of emphasis given to "social" as compared to "cognitive" development; (2) the number of academic subjects taught, and which of these had behavioral objectives set; and (3) the grouping procedures used by the school.

The question of whether the kindergarten curriculum gave major emphasis to the child's social development produced a variety of responses. In some schools, the emphasis is on social interaction and remains this way throughout the year. In others, the emphasis changes from social to cognitive skills as the year goes on. In still others, academic skills are stressed from the outset. Many schools stated that they could not identify either area as more important because social and cognitive skills were integrated so completely in their curriculum.

Another variability in the curriculums of IGE kindergartens was the number of "academic subjects" taught. Language arts was always given "high priority" and was sometimes the only subject matter taught. Some schools included this with math or math readiness; others added social studies and/or science. Art, music, and physical education were also listed by some schools. Behavioral objectives were often used for one or more of these subjects. Some schools would use them for just language arts, others for just math, still others for both of these, while some schools would use them for all subjects taught.

One characteristic of IGE schools which demonstrates their diversity to a remarkable degree is their grouping procedures. All the schools interviewed did some grouping of their kindergarten children. The answers to such questions as how often the children were grouped, for what skills, and among how many teachers often depended upon their organizational patterns.

Grouping in kindergartens not combined with primary levels offered several possibilities. One teacher grouped within her own class with no exchange of children with other teachers. Other teachers exchanged children between them, using groups for cognitive skills only. In other schools, teachers in all-K units exchanged children and grouped for both cognitive and social activities.

For units encompassing both kindergarten and primary children, the grouping procedures also varied, often according to how many of the unit teachers taught the kindergartners. Their options included: grouping the kindergarten children totally by themselves; mixing them with the primary children for some activities; or mixing them with the older children for all activities. Some units would mix the various ages for "content areas" only; others would mix them for "free choice" or "decision-making" time only. Within these possibilities, there were also time differences, which ranged from one school where the kindergarten children spent an average of 20 minutes working with older children to another school where multiage groupings were used during the total four-hour day.

ASSESSMENT

The nature of the kindergarten curriculum in an IGE school will depend on what emphasis is given to social development and cognitive skills, what the number and kind of academic subjects taught include, and which of a wide range of grouping possibilities are used. Another variable is the use of assessment. Formal standardized and criterion-referenced tests may be considered as well as more informal, teacher-made tests and observations.

Most of the schools surveyed used some form of standardized readiness, IQ, or attitude test once or twice a year. This testing usually began in September or October, but was occasionally started in spring of the kindergarten year. Readiness tests seem to be the most popular for providing general information on "where a child is" and as an aid in grouping. Some schools used formal tests to provide a specific plan of instruction for each child for the total year. Others used the tests primarily to provide information to parents or the next year's teachers. Still others were interested in test results that indicated how the child felt about himself and what motivated him.

Another formal test being used by a variety of schools is the criterion-referenced or "objective-based" test which assesses a particular behavioral objective in a certain subject matter. These tests may be included in a curriculum program such as in the Wisconsin Design for Reading Skill Development, or may be developed by teachers to pre-test and posttest their objective for a particular unit of study.

In addition to formal tests, these schools used some means of informal assessment to measure the child's progress. These informal measurements could include talking to the child to see if he has a particular skill, reviewing the child's performance with a checklist in hand, devising oral or written tests for the child to take, and/or simply observing the child's activities. This type of assessment is often ongoing and done almost every day; in some instances it is used every two or three weeks at the end of a unit of study.

From our survey it seems that teachers tend to use formal measures to initially place a child in a group and then informal tools to ascertain whether he has mastered the particular skill at hand and is ready to go to the next one. Teacher judgments are often relied on for deciding *when* a child is ready for specific instruction on cognitive skills. However, since the use of assessment is just as diverse as curriculum and organizational decisions, no definite conclusions can be drawn about overall use of assessment. Even though their use of testing varies, these kindergarten teachers in the swing of IGE do believe in assessment and don't agree with those who see it as traumatic for the child. They take the time to create an environment which makes assessment an integral and natural part of the curriculum.

UTILIZATION OF AUXILIARY PERSONNEL

Another implementation practice which demonstrated wide variability was the use of aides or parent volunteers. Most teachers had some

assistance in the form of aides or parents. How they used this assistance included various proportions of supervisory, clerical, and instructional duties. Some schools used aides only for supervisory functions such as escorting children to the bus and lunchroom and recess monitoring. To these supervisory duties, some teachers added clerical tasks, including keeping records, correcting papers and tests, preparing materials, and putting up bulletin boards. Many, however, used aides for instructional purposes, saying that the aides "do the same things as the teachers do." In some instances aides would be regularly assigned to meet with instructional groups or supervise interest centers; in other instances they would help children who were having trouble or were ahead of the others.

Some schools could count on parents to help on a regular basis and therefore used them for specific activities, such as "painting time" or "decision-making time." In other schools, parents came in just for a special activity such as a field trip or a play.

From this survey of different organizational, curricular, assessment, and personnel practices, it is clear that there is no one way of using IGE in kindergarten. One requisite seems to be present, however, and that is a willingness to "jump in" and try some new ways of doing things.